

Title (en)  
AIR SPRING

Title (de)  
LUFTFEDER

Title (fr)  
RESSORT PNEUMATIQUE

Publication  
**EP 3011198 B1 20190501 (DE)**

Application  
**EP 14726154 A 20140523**

Priority  
• DE 102013211666 A 20130620  
• EP 2014060676 W 20140523

Abstract (en)  
[origin: WO2014202330A1] The invention relates to an air spring (1) for vehicles, having an air spring bellows (4) clamped in an air-tight manner between an air spring cover (2) and an air spring rolling piston (3). The air spring bellows is made of a composite material consisting of an elastomer material having one or more embedded reinforcing layers, which bellows, along with the air spring cover (2) and the air spring rolling piston (3), delimits a working chamber (5) filled with compressed air and, by forming a rolling fold (6), rolls over the air spring rolling piston (3). Said air spring bellows (4) comprises a first air spring bellows section (8) and a second air spring bellows section (9) joined together in an overlap region (10) and having reinforcing layers running at a different angle to a longitudinal axis L of the air spring. According to the invention, the first and second air spring bellows sections (8, 9) are separated by a freely movable clamp joint arranged in the overlap region (10).

IPC 8 full level  
**B60G 11/27** (2006.01); **F16F 9/04** (2006.01); **F16F 9/05** (2006.01)

CPC (source: EP US)  
**B60G 11/27** (2013.01 - US); **F16F 9/0409** (2013.01 - EP US); **F16F 9/0445** (2013.01 - EP US); **F16F 9/05** (2013.01 - US);  
**B60G 2202/152** (2013.01 - US)

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

**DE 102013211666 A1 20141224**; CN 105339697 A 20160217; EP 3011198 A1 20160427; EP 3011198 B1 20190501;  
JP 2016520783 A 20160714; US 2016107496 A1 20160421; WO 2014202330 A1 20141224

DOCDB simple family (application)

**DE 102013211666 A 20130620**; CN 201480034899 A 20140523; EP 14726154 A 20140523; EP 2014060676 W 20140523;  
JP 2016518898 A 20140523; US 201414896425 A 20140523